To: Ostrander, David[Ostrander.David@epa.gov]; Guria, Peter[Guria.Peter@epa.gov]; EOC Environmental Unit[EOC_Environmental_Unit@epa.gov]; EOC_Manager@epa.gov]

From: Barry, Michael

Sent: Mon 10/5/2015 8:50:25 PM

Subject: RE: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

Thanks for the heads up advice.

Regards the treatment system Q's, I have the more technical info from the sub you sent the other week that will answer the questions enough. Unless you object, we can reply and cc you (of course!)

Mike Barry | Cell: 617.680.5466 | barry.michael@epa.gov

9/24 - 10/8/2015:

Incident Commander

Gold King Mine Response

Durango, CO

Travel on 10/9 to Permanent Duties:

Team Leader On-Scene Coordinator,

Emergency Response & Planning Branch

EPA Region 1, 5 Post Office Square, Suite 100 (OSRR02-2), Boston, MA, 02109

From: Ostrander, David

Sent: Monday, October 05, 2015 2:48 PM

To: Barry, Michael <Barry.Michael@epa.gov>; Guria, Peter <Guria.Peter@epa.gov>; EOC

Environmental Unit <EOC_Environmental_Unit@epa.gov>; Kappelman, David <Kappelman.David@epa.gov>; EOC Manager, <EOC Manager@epa.gov>

Cc: Cheatham, Reggie <cheatham.reggie@epa.gov>; Tulis, Dana <Tulis.Dana@epa.gov> **Subject:** RE: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

I would suggest a quick review of monitoring data along the Animas stretch to see if this spike was coming from upstream. I recall looking at data a week or more ago and noticing a spike in data in the lower Animas around Farmington and the San Juan that correlated to rain storms in New Mexico. There was not an upstream spike in metals in the Animas, so it looked like the metals were coming from the local rain event.

From: Barry, Michael

Sent: Monday, October 05, 2015 2:19 PM

To: Ostrander, David; Guria, Peter; EOC Environmental Unit; Kappelman, David;

EOC_Manager,

Cc: Cheatham, Reggie; Tulis, Dana

Subject: RE: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

Concur this is an issue for ICP to work out with R9 and keep others informed.

Thanks for the cc so it's on my radar.

Mike

Mike Barry | Cell: 617.680.5466 | barry.michael@epa.gov

9/24 - 10/8/2015:

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EPA Region 1, 5 Post Office Square, Suite 100 (OSRR02-2), Boston, MA, 02109

From: Ostrander, David

Sent: Monday, October 05, 2015 1:58 PM

To: Guria, Peter < Guria. Peter @epa.gov >; EOC Environmental Unit

<<u>EOC Environmental Unit@epa.gov</u>>; Kappelman, David <<u>Kappelman.David@epa.gov</u>>; EOC_Manager, <<u>EOC Manager@epa.gov</u>>; Barry, Michael <<u>Barry.Michael@epa.gov</u>> Cc: Cheatham, Reggie <<u>cheatham.reggie@epa.gov</u>>; Tulis, Dana <<u>Tulis.Dana@epa.gov</u>> Subject: RE: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

This needs to go to the IC environmental unit.

Thanks

From: Guria, Peter

Sent: Monday, October 05, 2015 8:52 AM

To: EOC Environmental Unit; Kappelman, David; Ostrander, David; EOC Manager,

Cc: Cheatham, Reggie; Tulis, Dana

Subject: RE: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

One other note, we expect to receive the Level IV data package by the end of this week which will clarify the QA/QC. So far the lab is reviewing their calculations to ensure the data is correctly reported.

From: Smith, Terry On Behalf Of EOC Environmental Unit

Sent: Monday, October 05, 2015 7:39 AM

To: Kappelman, David; Ostrander, David; EOC Manager,

Cc: Guria, Peter; Cheatham, Reggie; Tulis, Dana

Subject: Fw: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

Mr. Kappelman and Mr. Ostrander.

Please review the below text and let me know how you want to proceed with data posting. One of the sites in Region 9 had some very high hits for dissolved metals that

exceed the recreational surface water screening levels. The trend lines show this site to have relatively low historical metal content. The new data will bring about some questions on why now the high results. We have not posted this data yet. Before posting, is there anyway to re-check the data back on your end to see if there might be a reason for the high results, i.e. data might be lab QC samples, sample containers may have been switched, a rain event causing turbulent with sediment causing metals to get up into the water column, etc. ???

Thanks

From: Guria, Peter

Sent: Monday, October 5, 2015 10:14 AM

To: EOC Environmental Unit; Stralka, Daniel; Delgado, Eric; Kappelman, David; Schaefer, Joe **Subject:** RE: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

Not sure. We'd have to ask the field teams, or someone in the IC. We've got nobody from R9 in the IC or working with the field sampling teams to know what the conditions are like.

Perhaps David K. can run this down if he is still in the IC EU.

From: Smith, Terry On Behalf Of EOC Environmental Unit

Sent: Friday, October 02, 2015 5:42 PM

To: Guria, Peter; Stralka, Daniel; Delgado, Eric; Kappelman, David; Schaefer, Joe

Subject: Re: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

Sorry: Was there a large rain event?

From: Smith, Terry on behalf of EOC Environmental Unit

Sent: Friday, October 2, 2015 5:42 PM

To: Guria, Peter; Stralka, Daniel; Delgado, Eric; Kappelman, David; Schaefer, Joe

Subject: Fw: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

Hi All: The surface water results for the 9/24 sampling is going to blow the top off the trend lines for dissolved metals at location SJ4C. Aluminum, cobalt, iron, manganese and thallium are all significantly above the recreational screening values (totals are even higher). Before we post this data set, is there anyway to go back and look at the raw data to make absolutely sure there was not a mix up in the samples, or that these were not some sort of QA sample. Was there a large range event, or some other explanation.

Terry

From: Guria, Peter

Sent: Friday, October 2, 2015 1:22 PM

To: EOC Environmental Unit; Tulis, Dana; EOC_Manager,; Delgado, Eric; <u>GKM_datateam@westonsolutions.com</u>; EOC Public Information; Schaefer, Joe

Cc: Kappelman, David; Grantham, Nancy; Gilbert, Edward; Gray, David; Beach, John; Stralka,

Daniel; Guria, Peter

Subject: R9 Surface Water and Sediment Data Collected from the SJR on 9/24 to Load

This data submission presents data for surface water and sediment samples collected on 9/24 from the San Juan River. This data is ready to be posted on EPA.GOV/GOLDKINGMINE.

Human Health Screening:

The reported concentrations of metals in San Juan River <u>sediment</u> samples collected on 24 Sept 2015 were compared to the health-based screening levels for a 64-day recreational exposure developed by R8 for this incident. **All metals in San Juan River sediment concentrations were below the recreational sediment screening levels.**

The reported dissolved and total concentrations of metals in <u>surface water</u> collected on 24 Sept 2015 were compared to the health-based screening levels for a 64-day recreational exposure developed by R8 for this incident; the dissolved metals concentrations were also compared to federal MCLs. Several metals failed either the MCL or recreational exposure screening levels consistently at 3 stations; SJ4C, SJSR and SJLP, and for fewer metals at SJMC. However, there were no exceedances at SJMH. Dissolved concentration exceeded MCLs for arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr) and lead (Pb). Total metal concentration failed the recreational screening level for aluminum (Al), cobalt (Co), iron (Fe), lead (Pb), manganese (Mn) and thallium (TI).

Navajo Nation Agricultural & Livestock Screening Levels:

The reported dissolved and total concentrations on metals in surface water collected on 24 Sept 2015 were compared to current Agricultural and Livestock Watering screening levels developed by the Navajo Nation Water Quality Program. Again, stations SJ4C, SJSR and SJLP had exceedances, fewer at SJMC and none at SJMH. Agricultural water was exceeded for dissolved aluminum (AI), cobalt (Co), copper (Cu), vanadium (V) as well as total selenium (Se). Livestock water screening levels were exceeded at various stations for lead (Pb), both total and dissolved, and dissolved vanadium (V).

Ecological Screening:

Surface Water samples collected on 24 Sept 2015 exceeded the available ecological benchmarks for the following metals/locations/dates (the criteria apply to dissolved concentrations; exceedances are reported for dissolved values only):

Dissolved Aluminum exceeding chronic and acute NRQWCs in 4 samples: SJ4C, SJLP, SJMC and SJSR

Dissolved Barium exceeding acute NRQWC (no chronic values are available) in 6 samples from 5 locations: SJ4C, SJLP, SJMC, 2 from SJMH and SJSR

Dissolved Beryllium exceeding acute NRQWC (no chronic values are available) in 3 samples: SJ4C, SJLP, and SJSR

Dissolved Cadmium exceeding chronic and acute NRQWCs in 1 sample: SJ4C

Dissolved Chromium exceeding chronic NRQWC in 1 sample: SJ4C

Dissolved Cobalt chronic NRQWC (no acute values are available) in 2 samples: SJ4C and SJSR

Dissolved Copper exceeding chronic and acute NRQWCs in 3 samples: SJ4C, SJLP, SJSR

Dissolved Iron exceeding chronic NRQWC (no acute values are available) in 3 samples: SJ4C, SJLP, SJSR

Dissolved Lead exceeding chronic NRQWC (no acute values are available) in 3 samples: SJ4C, SJLP, SJSR

Dissolved Manganese exceeding acute NRQWC (no chronic value is available in 3 samples: SJ4C, SJLP, SJSR

Dissolved Nickel exceeding chronic and acute NRQWCs in 2 samples: SJ4C, and SJSR

Dissolved Selenium exceeding chronic NRQWC (no acute values are available) in 1 sample: SJ4C

Dissolved Vanadium exceeding acute NRQWC (no chronic values are available) in in 3 samples: SJ4C, SJLP, SJSR

Dissolved Zinc exceeding chronic and acute NRQWCs in 2 samples: SJ4C, and SJSR

Sediment: None of the sediment samples collected on 9/17 and 9/21 from the San Juan River exceeded the project Sediment Quality Criteria.

Pete Guria, Chief

Operations & Scientific Support Section

USEPA Region 9

415-972-3043

guria.peter@epa.gov